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7. (Amended) The apparatus of claim 1 wherein the detector means comprises:
first and second photodetectors for simultaneously receiving the radiation from the counter-propagating signals in the waveguide; and
processing means for receiving signals from the first and second photodetectors for determining the time delay or difference between the signals effected from the same disturbance and therefore determining the location of the sensed event.

9. (Amended) The apparatus of claim 1 wherein the waveguide is for connection to the structure to monitor the structure.

10. (Amended) The apparatus of claim 1 wherein the structure comprises the waveguide for transmitting data along the waveguide from one place to another and the waveguide simultaneously receiving the light from the light source to provide the counter-propagating optical signals so as to enable the integrity and security of the waveguide to be monitored.

11. (Amended) The apparatus according to claim 1 wherein the detector also identifies or quantifies the parameter from the modified counter-propagating optical signals.

12. (Amended) The apparatus of claim 1 wherein waveguide is arranged in a loop configuration so that light can be simultaneously launched into both ends of the waveguide from a single light source.

22. (Amended) The apparatus of claim 20 wherein the light source is for launching simultaneously into opposite ends of the link.

23. (Amended) The apparatus of claim 20 wherein the light source is a single light source.

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24. (Amended) The apparatus of claim 20 wherein the detector means comprises:
first and second photodetectors for simultaneously receiving the light from the counter-propagating signals in the link; and
processing means for receiving signals from the first and second photodetectors for determining the time delay or difference between the signals effected from the same disturbance and therefore determining the location of the disturbance.